

## **REMARKS**

The Applicant has carefully reviewed the Office Action dated April 14, 2008. Claims 1-34 are all the claims pending in this application. Claims 1-34 are cancelled. New claims 35-46 are added to more distinctly claim the subject matter of the invention. No new matter is added. It is submitted that the application is in condition for allowance. Reexamination and reconsideration of the application is respectfully requested.

The Examiner objected to the claim numbering re claim 25 being presented in duplicate. It is respectfully submitted that this objection is overcome as pending claims 1-34 are cancelled.

### **§ 103 Rejections**

Claims 1-36 are rejected under 35 USC 103(e) as being obvious under Cho and Saiki. The Examiner contends that Cho and Saiki can be combined, and that the suggested combination teaches the claimed invention. The Applicant respectfully traverses the rejection.

MPEP §2143 provides:

“To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references

when combined) must teach or suggest all the claim limitations.”

Claims 1-34 are canceled. As such, the 103 grounds of rejection are moot. Regardless, with respect to new claims 34 to 46, the new claims recite a method and apparatus for controlling sound quality of an MFD by way of routing the signals in different paths depending on the state of operation of a mobile communication system in which the MFD is embedded.

As claimed, in a first state of operation, the audio signals are to be produced as voice signals by the MFD. Therefore, the signals are routed through a filter (e.g., a high-pass filter), after being amplified internally by a CODEC processor. The filtering removes the low frequency components of the signal that may result in undesirable vibrations in the MFD. In this manner, the voice signals are generated in a better quality, due to the lack of any low frequency resonance that would otherwise cause unwarranted vibrations in the MFD.

In a second state of operation, as claimed, the signals received by the mobile communication terminal to generate a ring tone are routed through an amplifier external to the CODEC processor and are then filtered to remove the low frequency components of the signal that may result in undesirable vibrations in the MFD and thus deteriorate the quality of the ring tone.

In a third state of operation, as claimed, the signals received by the mobile communication terminal are intended to generate a vibration alert. Since low frequency components in the signal are needed to produce a certain level of vibration in the MFD, it would be undesirable to filter those components out of the filter. Therefore, the signal is amplified without being filtered prior to the signal being provided to the MFD.

Neither of the cited references, either alone or in combination teach or suggest the above noted claimed elements. Col. 4 lines 40-46 of Cho teach a mobile terminal where “the first audio filter is connected to an input device of the differential amplifier and the second audio filter is connected to an input/output device of the differential amplifier. It is still preferable that the first audio filter has a characteristic of a high pass filter and second audio filter has a characteristic of a low pass filter.” (Emphases added). Accordingly, any amplified signal passes through a low pass filter. There is no discussion about an amplified signal being fed to a filter (e.g., high pass filter) for filtering out low frequency resonance components of the signal. Applicant submits that a low pass filter is patently distinguishable from a high pass filter, and as such Cho expressly teaches away from the invention as recited in claim 1.

Moreover, Fig. 3 of Cho explicitly illustrates that an amplifier receives the audio signal from the high pass filter. Thus, according to Cho, either the amplifier receives a signal from the high pass filter (Fig. 3), or the amplifier sends a signal to a low pass filter (Col. 4 lines 40-46). Therefore, Cho cannot teach filtering low oscillation frequency component from the amplified audio signal, as recited in the new claims. That is, Cho

suggests a reverse flow of signals from that recited in claim 1, such that instead of signal flow from the amplifier to the high pass filter, the signal flows from the high pass filter to the amplifier.

For the reasons stated above, Cho does not teach all of the elements recited in the new claims and instead teaches away from the claimed invention. Therefore, it is respectfully submitted that the claims are distinguishable over Cho. Further, Saiki fails to cure the deficiencies of Cho. Particularly, Saiki teaches an electro-mechanical-acoustic transducer having components that do not correspond to the components of the claimed subject matter. Further, there is no reason or justification for modifying Saiki or Cho in the direction of the present invention as each unit operates in a different manner, particularly in the direction of solving problems that are not related to the problems solved by the current invention.

While the suggestion to modify or combine references may come from the knowledge and common sense of a person of ordinary skill in the art, the fact that such knowledge may have been within the province of the ordinary artisan does not in and of itself make it so, absent clear and convincing evidence of such knowledge. C.R. Bard, Inc. v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 USPQ 2d 1225, 1232 (Fed. Cir. 1998) (emphasis added).

Here, the modification or combination proposed by the Examiner is not based on any clear and convincing evidence of a reason, suggestion, or motivation in the prior art that would have led one of ordinary skill in the art to combine the references. Rather, the reason, suggestion and motivation for the combination of references proposed by the

Examiner simply is impermissible hindsight reconstruction given the benefit of Appellant's disclosure.

The Federal Circuit has consistently held that hindsight reconstruction does not constitute a prima facie case of obviousness under 35 U.S.C. § 103. In re Geiger, 2 USPQ 2d 1276 (Fed Cir. 1987). Unfortunately, the Examiner rather than pointing to what the prior art discloses and teaches as to making the suggested modification relies on assumptions and statements without any support in the record. As such, the Examiner's statements regarding obviousness and motivation to modify are but shortcuts to a conclusion of obviousness devoid of the required analytical approach based on what is actually disclosed in the prior art.

Reliance on impermissible hindsight to avoid express limitations in the claims and setting forth unsupported hypothetical teachings to recreate the Applicant's claimed invention cannot establish a prima facie case of obviousness. Since obviousness may not be established by hindsight reconstruction, Applicants invite the Examiner to point out the alleged motivation to combine with specificity,<sup>1</sup> or alternatively provide a reference or affidavit in support thereof, pursuant to MPEP §2144.03.<sup>2</sup>

Since no reasonable justification is provided in the Office Action as to how such modification or combination is possible and obviousness may not be established based on hindsight and conjecture, it is respectfully requested that the 103 grounds of rejection be withdrawn.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing

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<sup>1</sup> *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

<sup>2</sup> "The rationale supporting an obviousness rejection may be based on common knowledge in the art or "well-known" prior art . . . If the applicant traverses such an assertion the examiner should cite a reference in support of his or her position. When a rejection is based on facts within the personal knowledge of the examiner . . . the facts must be supported, when called for by the applicant, by an affidavit from the examiner."

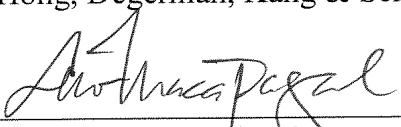
the scope of any claim, unless Applicants have expressly argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California, telephone number (213) 623 2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,  
Lee, Hong, Degerman, Kang & Schmadeka

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